

**Amendments to the Drawings:**

The Applicant respectfully thanks the Examiner for providing an opportunity to explain the amendments made to the drawings in converting the drawings from informal to formal drawings.

With respect to FIG. 1, a line connecting blocks 51 and 34 was added in the drawing changes illustrated herein. Other changes between the previously submitted informal FIG. 1 and the formal drawing of FIG. 1 submitted include the following:

1. Only part numbers were provided in informal drawing 1 to identify the structural components of the illustrated embodiment. In the formal drawings both the reference numbers for the structural components and the names of the structural components are provided. This should facilitate examination.
2. The icons used to represent reference numbers 50 – 54 have been modified and more clearly evidence the perspective of the drawing.
3. Fill in has been removed from reference number 51.

With respect to FIGS. 2 and 3 only part numbers were provided in informal drawings 2 and 3 to identify the structural components of the illustrated embodiment. In the formal drawings submitted, both the reference numbers for the structural components and the names of the structural components are provided. This should facilitate examination. Further, with respect to FIG. 2, the icon used to represent reference numbers 52 has been modified and more clearly evidence the perspective of the drawing.

With respect to FIGS. 4a-4c, it will be observed that reference 82 is an array of microlenses 84 and the 82 call-out line used in the informal drawings and in the previously proposed formal drawings is replaced in this amendment with an arrow pointing to the illustrated array of micro-lenses as a whole, this change, while not ultimately necessary for patentability, is consistent with the specification page 10, lines 26-30.

With respect to FIG. 8, it will be observed that in the informal drawings, reference number 144 (display mode) has a call-out line to the right of the box which should not be there and has been removed in the submitted formal

drawings. Further, in the informal drawings, no line was shown connecting blocks 152 and 154, while in the formal drawings an arrowed line has been added to connect blocks 152 and 154. Support for this amendment can be found in the specification at page 21, lines 31-32. Still further, an arrowed line connection in the informal drawings has been added to connect blocks 147 and the “end” block, and “yes” has been moved to the left of the “continue” block. Support for this amendment can be found in FIG. 8 which illustrates a decision box indicating that a decision is to be made in this further Step, and on page 31, indicating that the decision involves whether to continue to display. There are only two potential outcomes of such an action – an end of the display as represented by the “NO” text, or for the display to continue as suggested by the “YES” text and the connection to presentations in Step 146. Clearly, if there is no further display, there is nothing to do but “END”.

In FIG. 9, lines in the informal drawing illustrating an undescribed flooring have been removed.

With respect to FIG. 10, incorrect reference numbers were shown and have been corrected. Reference number 74 is now 84; 220 is now 210; and 96 is now 82. Further, shading has been introduced to better illustrate that the curvature of the surfaces of microlenses 84. With the proposed changes offered in this amendment, the reference number 84 will appear for each of the microlenses 82.

As a stylistic matter, various line thicknesses have been changed, fonts have been changed and shading has been introduced in various drawings. These mere stylistic changes have not been called out herein. However, if the Examiner should desire, these changes can be identified.

The attached sheets of drawings replace the original sheets including FIGS. 1-10.

Attachment: Replacement Sheets

## **REMARKS**

Claims 1-69 are pending in the application. Claims 1-69 stand rejected.

Applicant respectfully requests reconsideration in view of the foregoing amendments and the remarks hereinbelow.

### **Rejection of Claims under 35 U.S.C. 112:**

Claims 29, 42, 43 and 45 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 has been amended to overcome the objection of insufficient antecedent basis for the phrase "the scene."

Claims 42 and 43 have been amended to use terms defined in the specification on page 15.

Referring to Claim 45, the Examiner's position is that the specification does not enable one skilled in the art to reasonably establish what may be construed as being within the metes and bound of the limitation "transparent" as modified by the word of degree "generally." Claim 45 has been amended to change the word "generally" to "substantially." Although there appears to be little or no difference between the terms, "substantially" has been upheld by the courts as complying with the requirements of 35 U.S.C. 112. The issue is whether one of ordinary skill in the art understands what is claimed when the claims are read with the specification.

Here, the term "substantially" is present in Claim 45. This claims calls for a fiber optic bundle of substantially transparent material. As is commonly known, manufacturing tolerances exist. Further, from an understanding of the invention, it is not crucial or even possible for the material to be completely transparent. The term "substantially" is used to reflect these situations. One skilled in the art could understand what is claimed from common knowledge or from an understanding of the apparatus. Accordingly, Applicant believes that one of ordinary skill in the art would have an understanding of what is claimed when the claims are read with the specification and using common knowledge.

### **Rejection of Claims under 35 U.S.C. 103:**

Claims 1-69 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. (US 5,963,371) in view of Atick et al. (US 6,111,517).

The present invention relates to displays that are otherwise capable of presenting content within a presentation space are provided with the ability to adaptively inhibit unintended persons, who are in the presentation space, from observing the presented content. In accordance with a feature of the invention as defined by Claim 1, a reduced viewing space which is less than all of the presentation space and yet which includes the location of the intended person is defined. To do this, the method locates the intended person within the presentation space, and presents the content so that the content is discernable only within the reduced viewing space; and not to unintended persons outside of the viewing space but still within the presentation space.

Needham et al. is in a related field, in that the disclosed apparatus restricts certain content of a displayed image to a particular user. In Needham et al. the restriction is not carried out by limiting the viewing space to a portion of the entire presentation space (as in the present invention), but rather by coordinating the image with a special set of glasses worn by the intended viewer. In effect, the image is coded, and the glasses decode the image for the wearer. The image is presented to the entire presentation space of the monitor, and is not restricted to a particular portion thereof (i.e., to a viewing space within the presentation space). Thus, Needham et al. disclosed neither the ability to detect the location of the intended person nor the ability to reduce the viewing space to the detected location.

The Examiner refers to Needham et al.'s FIG. 5A as teaching "defining a viewing space...comprising less than all of the presentation space," but Applicant's attorney fails to find such a teaching in that figure or elsewhere in the Needham et al. disclosure. FIG. 5A merely shows that the special glasses are polarized so as to pass only cooperatively-polarized image content. There is no disclosure of differently sized presentation and viewing spaces. Should the Examiner persist in this rejection, further explanation of how the reference is being interpreted is respectfully solicited.

Atick et al. is cited by the Examiner for its teaching of locating a person within a display's presentation space. The Examiner suggests that it would have been obvious from Atick et al. to provide Needham et al. with that capability. Assuming arguendo that the references might be capable of combination, there is

at least one limitation in the claimed invention that is not disclosed by the references individually or in combination. The primary reference fails to disclose defining a viewing space comprising less than all of the presentation space. The secondary reference fails to disclose, in conceptual terms, the information undisclosed by the primary reference. "Each element of a claim is material." *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 227 USPQ 657,666 (Fed. Cir., 1985).

Claims 2-13 depend from Claim 1 and are allowable for at least the reasons set forth above.

As to Claim 2, Needham et al. do not disclose changing the viewing space to follow the location of the viewer, as proposed by the Examiner.

As to Claim 4, Atick et al. do not disclose defining the viewing space based on the width of a person's shoulders. Rather, the reference detects a second person that might be unauthorized, and warns the viewer of that person's presence.

As to Claim 5, applicant's attorney finds no disclosure in FIG. 5 or the cited passage of Needham et al. relating to defining a viewing by the distance from the display. Further explanation is requested.

As to Claim 6, Needham et al. does not disclose the ability to filter light so that the content can be discerned only in the viewing space. Although the light emitted from the Needham et al. display may be filtered, it is available for viewing throughout the presentation space.

As to Claim 7, Needham et al. does not disclose the ability to focus light patterns so that the content can be discerned only in the viewing space. Although the light emitted from the Needham et al. display may be patterned, it is available for viewing throughout the presentation space.

As to Claim 8, Needham et al. does not disclose the ability to form light patterns so that the content can be discerned only in the viewing space. Although the light emitted from the Needham et al. display may be patterned, it is available for viewing throughout the presentation space.

Neither reference discloses defining more than one viewing space as set forth in Claim 9. Each reference provides only a single viewing space, which covers the entire presentation space.

Needham et al. does not disclose restricting the viewing space to less than the presentation space; either vertically as set forth in Claim 12 or horizontally as set forth in Claim 13.

Claim 14 stands rejected on the basis of the reasoning applied in rejecting Claims 1 and 9. The Applicants' arguments for allowability of those claims apply also to Claim 14.

Claims 15-25 depend directly or indirectly from Claim 14, and are allowable therewith. However, some of the Examiner's comments warrant special note. For example, in rejecting Claim 19, the Examiner states that Atick et al. teaches combining profiles of persons in a common viewing space. Col. 8, lines 8-23 are referenced. Applicants' attorney is unable to find this technology in the referenced passage. The rejection of Claim 20 states that Atick et al. discloses combining viewer profiles in an additive manner, but the patent does not teach that technique. Similarly, the Examiner states that Atick et al. discloses combining viewer profiles in a subtractive manner as set forth in Claim 21, but the reference does not teach that either.

Claim 26 stands rejected on the basis of the reasoning applied in rejecting Claim 1. The Applicants' arguments for allowability of those claims apply also to Claim 26.

Claims 27-29 depend directly or indirectly from Claim 26, and are allowable therewith. However, some of the Examiner's comments warrant special note. For example, in rejecting Claim 27, the Examiner states that Needham et al. selects a mode based on an analysis of the content; but Needham et al. contains nothing about analyzing image content. Nor does Needham et al. disclose selecting a mode based on a personal profile as set forth in Claim 28.

Claim 30 stands rejected on the basis of the reasoning applied in rejecting Claims 1, 9, 14 and 20. The Applicants' arguments for allowability of those claims apply also to Claim 30.

Claim 31 stands rejected on the basis of the reasoning applied in rejecting Claims 1 and 6-9. The Applicants' arguments for allowability of those claims apply also to Claim 31. Further, neither Needham et al. nor Atick et al. provides a system for determining the location of persons in the presentation space and to

determine a viewing space for each such person monitoring a signal representative of conditions within a presentation space.

Claims 32-49 depend directly from Claim 31, and are allowable therewith. Further, Applicants' arguments for allowability of Claim 23 apply to Claim 32; Applicants' arguments for allowability of Claim 24 apply to Claim 33; Applicants' arguments for allowability of Claim 25 apply to Claim 34; Applicants' arguments for allowability of Claim 2 apply to Claim 3; Applicants' arguments for allowability of Claim 3 apply to Claim 36; Applicants' arguments for allowability of Claim 4 apply to Claim 37; Applicants' arguments for allowability of Claim 5 apply to Claim 38; Applicants' arguments for allowability of Claim 6 apply to Claim 39; and Applicants' arguments for allowability of Claim 7 apply to Claim 40.

Applicants' arguments for allowability of Claim 8 apply to Claim 41. Further, Figure 5 of Needham et al. does not disclose an array of lenslets as suggested by the Examiner, but rather Needham et al. shows a single polarizing lens. Also, the polarizing lens of Needham et al. does not direct light in a plurality of direction

Regarding Claim 42, Applicants' arguments for allowability of Claim 7 apply to Claim 42. Furthermore, the passage of Needham et al. cited for showing that "light forms an image only after a near depth of field" does not mention anything about this technology.

Regarding Claim 43, Applicants' arguments for allowability of Claim 7 apply to Claim 43. Furthermore, the passage of Needham et al. cited for showing that "light forms an image only after a far depth of field" does not mention anything about this technology.

Regarding Claim 44, Applicants' arguments for allowability of Claim 8 apply to Claim 44. Furthermore, the passage of Needham et al. cited for showing "baffles...that direct light to the viewing space" does not disclose baffles. The Examiner seems to be confusing polarized lenses technology with baffles.

Regarding Claim 45, Needham et al. does not disclose coherent fiber optic bundles.

Regarding Claim 46, Needham et al. does not disclose light absorbing barriers between micro-lenses.

Applicants' arguments for allowability of Claim 9 apply to Claim 47.  
Applicants' arguments for allowability of Claim 10 apply to Claim 48.  
Applicants' arguments for allowability of Claim 11 apply to Claim 49.  
Applicants' arguments for allowability of Claims 1, 6-9, 14 and 31 apply to Claim 50.

Claim 51-59 depend directly or indirectly from Claim 50 and are allowable therewith. The following comments are further directed to specific ones of Claims 51-59.

Applicants' arguments for allowability of Claim 15 apply to Claim 51.  
Applicants' arguments for allowability of Claim 16 apply to Claim 52.  
Applicants' arguments for allowability of Claim 17 apply to Claim 53.  
Applicants' arguments for allowability of Claim 18 apply to Claim 54.  
Applicants' arguments for allowability of Claim 19 apply to Claim 55.  
Applicants' arguments for allowability of Claim 20 apply to Claim 56.  
Applicants' arguments for allowability of Claim 21 apply to Claim 57.  
Applicants' arguments for allowability of Claim 22 apply to Claim 58.  
Applicants' arguments for allowability of Claim 15 apply to Claim 59.  
Applicants' arguments for allowability of Claims 1, 6-9, 2 and 31 apply to Claim 60.

Claim 61-63 depend directly or indirectly from Claim 60 and are allowable therewith. The following comments are further directed to specific ones of Claims 61-63.

Applicants' arguments for allowability of Claim 18 apply to Claim 61.  
Applicants' arguments for allowability of Claim 17 apply to Claim 62.  
Regarding Claim 63, Needham does not disclose selection of different display modes based upon a signal from a user controller.

Applicants' arguments for allowability of Claims 1, 9 and 31 apply to Claim 64.

Claims 65-67 depend directly from Claim 64 and are allowable therewith. The following comments are further directed to specific ones of Claims 65-67.

Applicants' arguments for allowability of Claim 46 apply to Claim 65.  
Applicants' arguments for allowability of Claim 41 apply to Claim 66.  
Applicants' arguments for allowability of Claim 46 apply to Claim 67.

Applicants' arguments for allowability of Claims 1, 18, 30 and 31 apply to Claim 68.

Claim 69 depends directly from Claim 68 and is allowable therewith. Further, Applicants' arguments for allowability of Claim 11 apply to Claim 69.

It is respectfully submitted, therefore, that in view of the above amendments and remarks, that this application is now in condition for allowance, prompt notice of which is earnestly solicited.

Respectfully submitted,



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